

WHAT IS CLAIMED IS:

1. A display system comprising:

a transparent plate;

5 a liquid crystal display for generating a display light of information, said display light having a plane of polarization inclined by an angle of about 45° relative to a vertical axis of an image plane of said liquid crystal display;

10 a first optical rotation layer disposed to a first surface of said transparent plate, said optical rotation layer being adapted to receive the display light from said liquid crystal display and to optically rotate the plane of polarization of the display light by an angle of about 90° ; and

15 a second optical rotation layer disposed between the image plane of said liquid crystal display and a second surface of said transparent plate, said optical rotation layer being adapted to optically rotate the plane of polarization of the display light from liquid crystal display by an angle of about 45° and to allow S-polarized light to outgo toward said transparent plate at Brewster's angle, the S-polarized light being reflected on a side of the second
20 surface of said transparent plate to be directed toward an eye of an operator.

2. A display system as claimed in Claim 1, further comprising a light-transmittable reflection layer disposed on the
25 second surface of said transparent plate, S-polarized light from said second optical rotation layer being reflected on said light-transmittable reflection layer and directed toward the eye of the operator.

30 3. A display system comprising:

a transparent plate;

a liquid crystal display for generating a display light of information, said display light having a plane of polarization

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inclined by an angle of about 45° relative to a vertical axis of an image plane of said liquid crystal display;

5 a first optical rotation layer disposed to a second surface of said transparent plate, said optical rotation layer being adapted to optically rotate the plane of polarization of the display light incident thereon by an angle of about 90° , the display light from said first optical rotation layer being reflected on the second surface of said transparent plate and directed toward an eye of an operator; and

10 a second optical rotation layer disposed between the image plane of said liquid crystal display and a second surface of said transparent plate, said second optical rotation layer being adapted to optically rotate the plane of polarization of the display light from liquid crystal display by an angle of about 45° and to allow P-polarized light to outgo toward said first optical rotation layer at
15 Brewster's angle.

4. A display system as claimed in Claim 3, further comprising a light-transmittable reflection layer disposed on a first surface of said transparent plate, the display light passed through
20 said transparent plate being reflected on said light-transmittable reflection layer and directed toward the eye of the operator.

5. A display system comprising:
a transparent plate;
25 a liquid crystal display for generating a display light of information, said display light having a plane of polarization inclined by an angle of about 45° relative to a vertical axis of an image plane of said liquid crystal display, the display light being incident on a second surface of said transparent plate at Brewster's
30 angle and reflected on a side of the second surface of transparent plate to be directed to an eye of an operator; and

an optical rotation layer disposed to a first surface of said transparent plate, said optical rotation layer being adapted to

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receive the display light from said liquid crystal display and to optically rotate the plane of polarization of the display light from said liquid crystal display by an angle of about 45° and to allow P-polarized light to outgo therefrom.

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6. A display system as claimed in Claim 5, further comprising a light-transmittable reflection layer disposed on a second surface of said transparent plate, the display light from said liquid crystal display being reflected on said light-transmittable reflection layer and directed toward the eye of the operator.
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